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Regional outreach:
Progress on regional advisory services

Report on regional advisory services in sustainable energy

Note by the secretariat

I. Introduction

1. The Regional Advisory Programme provides advice and technical assistance of an operational nature to countries with economies in transition, notably to the most disadvantaged of these. It complements and reinforces the regular and extrabudgetary programmes in energy and housing.

2. A biennial plan outlines technical assistance and capacity building activities in line with mandates given by the member States of the United Nations Economic Commission for Europe (ECE), either from the Committee on Sustainable Energy (the Committee) or from a member State. While the programme objectives are set forth in the strategic framework, there is flexibility to meet demands of member States.

3. Operational activities vary according to the needs of the recipient countries and the sub-regions, but invariably they involve a combination of the following:

(a) Preparation and implementation of specific programmes, issue-oriented and sub-regional in nature;

(b) Preparation of project proposals for donor funding (international organizations or countries);

(c) Development and preparation of substantive studies on policy issues and energy strategies;

(d) Implementation of capacity and institutional building programmes and training;

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(e) Organization of workshops, seminars and other group meetings;

(f) Consultative and advisory missions; and

(g) Study tours.

4. In line with the 2030 Agenda for Sustainable Development (2030 Agenda), technical assistance activities support sustainable development in the energy sector. In this regard, training, workshops and transfer of best practices are the main forms of the advisory services provided by the Regional Adviser, with a primary focus on the countries with economies in transition.

5. The range of activities that the Regional Adviser undertakes is shaped by necessities to focus on activities in line with the 2018–2019 programme of work for the sustainable energy subprogramme[1]. Regional Adviser activities have been related to the work of subsidiary bodies of the Committee. Since October 2017, the programmes on energy and housing have one Regional Adviser dedicated to them.

6. The Regional Advisor has also coordinated selected work carried out by his colleagues in the Division with national experts at countries level and international level through the four sister Regional Commissions. This networking activity provided synergies between the ECE sustainable energy programme and countries activities at national levels in these selected areas of work.

7. Using the countries' demand-driven approach the Regional Adviser has built a solid programme of technical assistance in response to requests by selected countries and financially supported through the United Nations Development Account (UNDA) and extra-budgetary sources. During the period under review, technical assistance and advisory services were provided to the countries of Eastern and South-East Europe, the Caucasus and Central Asia.

8. Current projects under implementation by the Regional Adviser:

(a) Sustainable Energy for All (SEforALL) in Eastern Europe, the Caucasus and Central Asia (UNDA) in cooperation with the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP);

(b) Integrated energy and water resource management in support of sustainable development in South-East Europe and Central Asia (UNDA);

(c) Application of biogas technology model for rural areas in Kyrgyzstan (project sponsored by the Russian Federation); and

(d) Enhancing transboundary energy cooperation through introduction of wind and solar energy into power systems of the countries of the Commonwealth of Independent States (CIS) to meet Sustainable Development Goal 7 (SDG 7, project sponsored by the Russian Federation).

[1] Draft programme of work for the United Nations Economic Commission for Europe Sustainable Energy Subprogramme for 2018-2019 (ECE/ENERGY/20187/11/Rev.1)

II. Key advisory services and activities (October 2017 – September 2018)

Capacity building activities

9. The Regional Adviser organized (in cooperation with ECE Environmental Division, 29–30 November, Astana, Kazakhstan) a workshop "Strengthening national capacity of Central Asia and Caucasus in transitioning to sustainable energy policy and practices based on the recommendations of the Environmental Performance Review". Its main objective was to strengthen the capacity of experts and government officials in the energy sector in targeted countries to identify and apply best practices, measures and procedures of sustainable energy in order to adapt policy and practices that support transition to sustainable energy. The participants included thirty experts from Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) and the Caucasus (Armenia, Azerbaijan and Georgia). High-level representatives (Vice Minister and Director of Green Economy Department) from the Ministry of Energy of Kazakhstan also were presented in the workshop and benefited from it. The event increased understanding of Governments' officials, experts and other stakeholders in economies in transition of the SDG 7 objectives, how to create favourable regulatory frameworks and incentives for renewable energy development, diversify energy supplies, tackle the Green House Gas emissions from the energy sector, enhance the energy efficiency of buildings, use waste for the production of energy and promote public awareness on energy efficiency and energy saving. The workshop will assist countries to meet common challenges: the restructuring of electricity tariffs to eliminate cross-subsidies and achieve the level of prices that reflects the costs of production in the power sector, while taking measures to protect vulnerable social groups, the lack of long-term planning in the energy sector and difficulties in operationalizing regulatory measures and incentives for energy efficiency and renewable energy development, fossil fuels impact on environment. The workshop strengthened the national capacity of Centrals Asian and Caucasus economies in transition for effective implementation of the SDG 7.

10. In collaboration with the ECE Environmental Division the Regional Adviser facilitated the work of the Working Group meeting on the legislation harmonization of the Republic of Kazakhstan in line with the Espoo Convention and its Protocol on Strategic Environmental Assessment (SEA) (Astana, Kazakhstan, 13-14 February 2018). The meeting brought together 27 participants: members of the Ministry's working group on environmental legislation development of the Republic of Kazakhstan, responsible for strategic planning and Environmental Impact Assessment (EIA) implementation, international legal consultants and national legal experts, representatives of the Ministry of Justice, Mistry of Investment and Development, Organization for Security and Co-operation in Europe (OSCE), and United Nations Development Programme (UNDP). The meeting was aimed to contribute to better awareness on the legal standards and requirements of the Espoo Convention and its Protocol on strategic environmental assessments and to result in specific recommendations for the scope and course of SEA and EIA legislative reforms with a consideration of alternative scenarios. The Regional Adviser moderated one of the sessions.

11. In response to the request from the Government of Kazakhstan, the Regional Adviser in cooperation with UNDP delivered a national study "Promoting clean and affordable energy to empower women and girls in Kazakhstan (and beyond in Central Asia)" aimed at involvement of women in the energy related decision-making in Kazakhstan, based on gender-disaggregated data from official statistics as well as additional qualitative and quantitative data collected through the tailor-made questionnaire.

The study mapped the gender gaps in in energy related decision making in the energy sector, and provided in-depth analyses on the differences in the use of the current energy services by women and men in rural and urban areas. Practical recommendations from the study support strengthening the gender–responsiveness of the energy sector in Kazakhstan, to develop gender-responsive policy to ensure gender equality in access to sustainable energy, to increase participation of women in decision-making and management of the energy and related sectors, and provide opportunities for jobs and career development. The proposed framework has been piloted in Kazakhstan with a strategy to replicate the methodology in other Central Asian countries.

12. Relevant best practices on sustainable energy for five beneficiary countries (Belarus, Georgia, Kazakhstan, and Kyrgyzstan) have been identified as a part of the Regional Adviser service and his role as manager for the UNDA project SEforAll in Eastern Europe, the Caucasus and Central Asia. The studies prepared by national and international consultants developed increased knowledge and understanding of what the best practices are throughout the ECE region and an assessment of their applicability to the national circumstances. This applicability and national models for development of sustainable energy policies have been considered through multi-stakeholder consultations with the participation of national officials/experts, ECE, ESCAP and others in four beneficiary countries: Belarus, Georgia, Kazakhstan, and Kyrgyzstan.

13. In collaboration with the colleagues from the Sustainable Energy Division the Regional Adviser co-organized and held the United Nations Framework Classification (UNFC) Workshop on Harmonization of Approaches in the Assessment and Sustainable Management of Energy and Mineral Resources (30–31 May 2018, Moscow, Russia). The event was organized in partnership with the Ministry of Natural Resources and Ecology of the Russian Federation, Ministry of Energy of the Russian Federation, Moscow State Institute of International Relations, Ministry of Foreign Affairs of the Russian Federation. The Regional Adviser moderated one of the workshop's session. Participants from Central Asian beneficiary countries – Kazakhstan, Kyrgyzstan, Uzbekistan – acquired knowledge and skills to apply UNFC for energy and mineral resource projects. The workshop also improved national capacities in dealing with uncertainties in resource management and innovative strategies for bringing resilience in the sector and development of a national system for classification and sustainable management of all energy and mineral resources based on UNFC.

14. In cooperation with CIS Electric-Power Council and Moscow Higher School of Economics the Regional Adviser co-organized a session "The development of renewable energy in the post-Soviet area: targets and directions for the international cooperation" under the framework of the International Congress "Renewable Energy - XXI Century: Energy and Economic Efficiency" (5–6 June, Moscow, Russia). The Regional Adviser made a presentation on up-coming ECE project "Enhancing transboundary energy cooperation through introduction of wind and solar energy into power systems of the CIS countries to support achievement of SDG 7". The session was attended by the Chairman of the Executive Committee of Electric Power Council of the CIS and the Director of the Eurasian Economic Council Energy Department. They expressed their support of the proposed project activities and willingness to sponsor future projects related to Renewable Energy development in CIS.

15. In collaboration with the colleagues from the Sustainable Energy Division the Regional Advisor co-organized and held the Workshop/Stakeholder Consultation "Pathways to Sustainable Energy: National Sustainable Energy Action Plans & Scenarios for Central Asia" (12–14 June 2018, Bishkek, Kyrgyzstan). Targeted at government representatives and other important energy stakeholders from the five Central Asian countries, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, the workshop

had several objectives. The workshop provided an opportunity to inform Central Asian stakeholders about the Pathways project and the study on policy options for Kyrgyzstan. Also, participants actively shared their comments and inputs to shape the development of sustainable energy scenarios and policy options from the perspective of Central Asia. Workshop results include a summary of the specific challenges of Central Asian countries in achieving sustainable energy from today's perspective, and an outlook towards policy options and pathways to achieve sustainable energy in the future. In total, 48 participants attended the workshop.

III. Advisory services

16. The Regional Adviser conducted:

A. Advisory mission to Belgrade, Serbia, 16–17 November 2017

17. The Regional Adviser undertook a mission to discuss cooperation between the ECE Sustainable Energy Division and the Government of Serbia and provision of support to national sustainable energy policies to meet SDG 7. Meetings were held with the Ministry of Mining and Energy, Elektroprivreda Srbije (EPS) state-owned electric utility power company, Center for Promotion of Sustainable Development.

18. The following topics were discussed with the representatives of the Ministry of Mining and Energy:

(a) Energy consumption per unit of Gross Domestic Product (GDP) in Serbia is above the European average and there is high potential for improving energy efficiency. While electricity and heat consumption in buildings (public, private and commercial) is still very high, the Law on Efficient Use of Energy aims to improve energy efficiency. Serbia should develop by-laws to enhance the successful implementation of the Law. Experts in Serbia need more detailed knowledge on energy audit;

(b) National system of resource classification was similar to the former USSR classification. Bridging Document between the Oil and Fuel Gas Reserves and Resources Classification of the Russian Federation of 2013 and the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources 2009 (UNFC-2009) might be useful for Serbia. However, the country intention to meet European Union (EU) standards includes development of new national resource classification, which will be in compliance with EU one. Technical assistance on UNFC will be provided to the Government;

(c) There is a need in technical assistance on topics related to shutdown of underground mines: economic, environmental and social problems;

(d) Due to low electricity tariffs in Serbia, which remain below the full cost price level, there is no return on capital that would ensure the long-term financial viability of the electricity system, including the financing of the investments necessary for guaranteeing the security of supply. The Government should implement appropriate steps for raising the level of electricity tariffs toward full cost recovery to ensure the development of power sector;

(e) There is an intention of Serbian Government to meet EU legislation requirements. It would be difficult for Serbia to meet requirements related to renewable energy share in the energy mix. At the same time increase of

energy efficiency would help to decrease power generation from thermal power plants. Serbia has considerable potential for renewable energy (hydro, wind, solar, biomass and geothermal). Currently only hydropower is including in the renewable energy share for electricity production. Considerable consumption in the country of wood for heating purposes is ineffective way to use this biomass. The legal framework for renewable electricity production has been introduced but complicated licensing and permitting procedures slow down successful development of renewable energy sources;

(f) Around 65% of EPS's power generation based on coal combustion. It's a burden for company because Serbia aims at EU standards, which are too tough for the national economy now. The Government should introduce emission development strategy with an action plan and secure funding for the strategy's implementation. EPS requested Regional adviser to provide Government and Company with the review of world best practices on carbon capture and storage.

B. Advisory mission to Astana, Kazakhstan, 13–15 February 2018

19. Meetings with officials of the Ministry of Energy of Kazakhstan, Parliament, KAZENERGY, Samruk-Energy, KazMunayGas, UNDP on cooperation with ECE and support of ECE/UNDP pilot project on promoting clean and affordable energy to empower women and girls in Kazakhstan and beyond in Central Asia were held.

20. During meetings with the Vice Minister and other Ministry's officials there were discussions on SDG7 implementation in Kazakhstan, low-carbon energy and green economy development, cooperation in particular, on Energy-Gender project.

21. The Vice Minister requested Regional Adviser to participate in the meeting with representatives of Kazak National Statistics Committee to advise on energy (coal production and coal concentrate) data presentation in official statistics books.

22. Meeting with the Chairperson of the Committee for Social-Cultural Development and Science of the Parliament of the Republic of Kazakhstan was devoted to the proposed pilot project on energy and gender. The Chairperson expressed great interest in implementation of the project and offered full support.

23. During meetings with the UNDP Country Office representatives mutual pilot project on energy and gender in Kazakhstan was discussed. Roles of stakeholders have been identified. Regional Adviser raised funds for national study on promoting clean and affordable energy to empower women and girls in Kazakhstan.

24. Regional Adviser discussed with representatives of the KazEnergy points of cooperation, in particular, on EPR in Kazakhstan in 2018, and development of project on promoting clean and affordable energy to empower women and girls in Kazakhstan and beyond in Central Asia. KazEnergy agreed to bond ECE and UNDP activities on energy-gender topic and to sponsor an event to present project's findings during the World Petroleum Council in Astana 1–3 October 2018.

25. Further to the Vice Minister request, Regional Advisor held a meeting with representatives of National Statistics Committee to discuss calculation of the index of physical volume of coal and lignite production by the Committee of Statistics. The Ministry of energy noted that in Statistics books the volume of Coal Concentrate (product of coal processing) is added to the total volume of coal mining. Consequently, the volume of coal processed for Coal Concentrate production was double-counted. The above actions distort

the index of physical volume within the activity "Coal and Lignite Production". According the International Standard Industrial Classification of All Economic Activities (ISIC) (Rev. 4 UN, New York, 2009). Regional Advisor noted that the information about coal concentrate production should be moved from section B "Mining and quarrying" to section C "Manufacturing", and the calculation of the index of physical volume is recommended to be conducted in respect of proposed changes.

C. Advisory mission to Minsk, Belarus 10–11 April 2018

26. Meetings were held with officials of the National Statistic Committee of the Republic of Belarus: Deputy Chairperson and Head of the Department of Enterprises Statistics. On behalf of the Committee the Deputy Chairperson expressed gratitude for the technical assistance provided under the UNDA project "Sustainable Energy for All in Eastern Europe, the Caucasus and Central Asia". It was noted that participation of national experts in the trainings on energy statistics helped them to improve national data collection and track progress in achieving indicators of SDG 7. All recommendations, which were developed for Belarus as a result of the project's activities, have been taken into account. The Committee requested to continue technical assistance and in particular, to assist Belarus in expanding energy efficiency indicators with an emphasis on the transport sector.

27. Discussions on further project implementation of the project and in particular on national best energy practises and preparation of National Action Plan to meet SDG 7 were held with officials of the Department for Energy Efficiency of the State Committee on Standardization of the Republic of Belarus, Belarus Energy Institute, Ministry of Natural Resources and Environmental Protection, Ministry of Energy, ECE Consultant. The relevant best practices on sustainable energy for Belarus to be included to the consultant's work were discussed and agreed. It was noted that the study on best practices increase knowledge and understanding of what the best practices are throughout the ECE region and an assessment of their applicability to the national circumstances. Detailed terms of references for the national study was agreed and discussed with all stakeholders.

28. Meetings with the representatives of the National Statistic Committee and Department for Energy Efficiency of the State Committee on Standardization confirmed that project implementation is demand driven. National Statistic Committee delivered a letter to ECE Executive Secretary related to UNDA project implementation and future cooperation

D. Mission with the ECE Environmental Performance Review team (Kazakhstan 13–20 March 2018)

29. An Environmental Performance Review (EPR) is an assessment of the progress a country has made in reconciling its environmental and economic targets and in meeting its international environmental commitments. The third EPR of Kazakhstan focuses on the country's progress in greening its economy, particularly the energy, industry, agriculture and health sectors.

30. The Regional Advisor was responsible for the Chapter on Energy and Environment - review the country's progress in delivering on its green economy agenda and improving environmental performance of the energy sector. During the field mission, the Regional Advisor met governmental officials, representatives of international organizations, business, academia and non-governmental organizations; visited various sites such as thermal power plants; evaluated the Government's efforts to abate pollution from energy related activities, improve energy efficiency, reduce waste and GHG emissions; developed recommendations for the Government.

31. As a result of the mission, the Chapter "Energy and Environment" was prepared. The EPR and in particular, chapter on Energy comes exactly at the right moment as Kazakhstan is in the process of revising its 2013 Concept on Transition to a Green Economy, its Programme on Power-Fuel sector development, and its 2007 Environmental Code.

E. Tasks performed in accordance with countries' requests

32. The Regional Adviser:

(a) Formulated the requirements necessary to prepare Coal Mine and Coal Utilization Plants Development Assessment such as a list of the geological data necessary to perform various analyses to identify appropriate coal mining methods, and coal technical analysis necessary to identify coal utilization technology and mode of operation (for the Government of Tajikistan);

(b) Prepared a review of the world best practices on gas-to-liquid technologies/projects (for the Government of Tajikistan);

(c) Provided the Government of Kyrgyzstan with information on electricity tariffs in other Central Asian countries; and

(d) Provided the Government of Kazakhstan with an overview of the world best practices on coal gasification technologies and projects.

IV. Field projects

33. The Regional Adviser has been implementing a field project "Application of biogas technology model for rural areas in Kyrgyzstan" (sponsored by the Russian Federation). The objective of the project is to introduce a cost-effective green technology biogas model in the rural areas of Kyrgyzstan. The project delivers concrete renewable energy solutions for rural application and targets the rural community near Kant town in Kyrgyzstan. The objective of the project has been achieved by installation of a biogas unit. The unit was launched on 19 September 2018.

34. The biogas plant with a methane tank of 25 cubic metres is producing around 116,650 cubic metres of biogas annually for heating purposes. Aside from biogas, the plant is producing 200 tonnes of organic fertilizers annually, which is sufficient to fertilize 200 hectares of arable farmlands. The production of bio-fertilizers helps replace mineral fertilizers and result in US$ 14,000 savings annually. Moreover, the methane produced will substitute 6.4 tonnes of diesel fuel, which is now used to heat farms and this will save US$ 3,120 annually.

35. A capacity-building workshop on small scale renewable energy solutions in Central Asian countries has been conducted following installation of the unit. Forty participants from all Central Asian countries attended the workshop. The national Institute of Energy and Economy, which executed construction presented results and experience of the biogas unit construction; all participants considered Central Asian countries barriers, challenges and solutions to achieve sustainable energy in rural areas and defined next steps and phases to provide rural areas with sustainable energy solutions; ECE presented overall results of the project.

36. The Regional Adviser initiated the implementation of the new extra-budgetary project "Enhancing transboundary energy cooperation through introduction of wind and solar energy into power systems of the CIS countries to meet SDG 7" (project sponsored by the Russian Federation). The objective of the project is to enhance transboundary cooperation on renewable energy sources in the CIS countries. The project will develop approaches to assess renewable energy sources, to share information, and to develop methodology for regional wind and solar energy development programs.

37. The Regional Adviser launched the implementation of the UNDA project "Integrated energy and water resource management in support of sustainable development in South-East Europe and Central Asia". National consultants have been engaged into preparation assessment to examine the obstacles to the sustainable development of energy and water resource both at policy as well as operation levels. The international consultant has been engaged as a trainer on data collection related to sustainable energy and water resources management and monitoring and UNFC application as a tool for policy and strategic decision making.

V. Fund raising

38. The Regional Adviser initiated, discussed with a donor and with the government of a beneficiary country, and raised funds (US$ 147,000) for the project "Enhancing transboundary energy cooperation through introduction of wind and solar energy into power systems of the CIS countries to meet SDG7".

39. Based on prepared by the Regional Adviser a project document "Integrated energy and water resource management in support of sustainable development in South-East Europe and Central Asia", funding (USD 490,000) from the UNDA Eleventh Tranche has been awarded to the ECE Sustainable Energy Division.

VI. Cooperation with other United Nations entities

40. The well-developed regional and sub-regional dimensions of the secretariat's energy technical assistance activities focus on the development of cross-border cooperation for common problems and the sharing of best practices. The secretariat has been able to meet a growing demand for technical assistance activities through active cooperation with key partners, particularly the ESCAP and UNDP.

41. The Regional Adviser worked in close cooperation with ESCAP, United Nations Department of Economic and Social Affairs (UN DESA) and UNDP in particular, during the period 2017–2018 in the implementation of UNDA projects. The Regional Adviser additionally is organizing sessions of the Special Programme for the Economies of Central Asia (SPECA) Working Group on Water, Energy and Environment jointly with ESCAP to be held in October 2018 in Astana, Kazakhstan. Through cooperation arranged by the Regional Adviser, important administrative support has been provided by UNDP country offices in implementation of capacity-building activities and field project in the countries.

VII. Inter-divisional cooperation within ECE

42. The Regional Adviser works in close cooperation with the ECE Environment Division, in particular in the preparation of the energy chapter for the Environmental Performance Review; in the execution of the workshop "Strengthening capacity of experts and government officials in the energy sector in transitioning to sustainable energy policy and practices based on the recommendations of the Environmental Performance Reviews"; in preparation and execution of the Working group meeting on the legislation harmonization of the Republic of Kazakhstan in line with the Espoo Convention and its Protocol on Strategic Environmental Assessment (SEA); and in preparation of the session of the SPECA Working Group on Water, Energy and Environment. The Regional Adviser also participates in the work of the ECE Working Group on Technical Cooperation.

VIII. The way forward

43. Technical assistance activities in energy will focus on supporting policy dialogue, the exchange of best practices and facilitation of the use of energy sector performance indicators, which are in growing demand. The ECE Sustainable Energy Division meets this demand by supporting the sustainable development of energy services and infrastructure that promote generation and consumption of energy in an efficient, safe, secure and environmentally-friendly way.

44. The focus on strengthening the capacity of the countries of Eastern and South-Eastern Europe, the Caucasus and Central Asia to implement relevant SDGs will remain the main task of the Regional Adviser, as demand necessitates, and subject to the availability of resources.

45. The work of the Regional Advisor will be based on two major principles/approaches: a Programmatic approach, and the Countries' demand-driven approach. Through a Programmatic approach the Regional Advisor will provide substantive assistance to the Division colleagues in charge of various energy programmes and projects of the sub programme 5 – "Sustainable Energy".

46. Emphasis will be done on efforts to achieve concrete progress to the 2030 Agenda at the country and regional level, including broader thematic activities, such as: Reducing the environmental footprint of fossil energy, Sustainable resource management; and Deep transformation of the energy system. The Regional Advisor will also connect the work of the subprogramme to the country level through a broad mobilization of national experts.

47. Many of the technical assistance activities are planned and implemented in active cooperation with key international organizations and institutions, both within and outside of the United Nations system, and with business and academic communities and non-governmental organizations. Such partnerships maximize capacity-building outputs and bring additional expertise for member States. The Sustainable Energy Division will continue to collaborate with international organizations and institutions and will actively

seek partners in the implementation of technical assistance activities with the aim of increasing their effectiveness and avoiding duplication of resources.